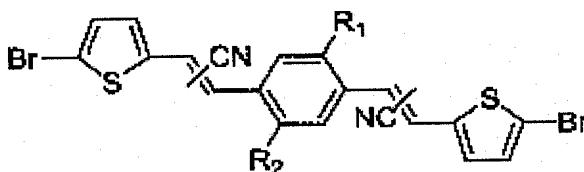


7. The device as defined in claim 6, wherein the device is a multi-layer film structure comprising a semitransparent electrode, a hole transporting layer, the polymer light-emitting layer, an electron transporting layer and a metal electrode successively laminated on a substrate.

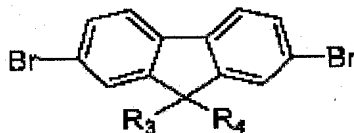
8. The device as defined in claim 6, wherein the polymer light-emitting layer is formed by blending the light-emitting copolymer with an electron or a hole transporting polymer.

9. A method of preparing the light-emitting copolymer of claim 1, comprising the step of copolymerizing a monomer represented by the following formula 2 and another monomer represented by the following formula 3 in the presence of nickel(0) catalyst:

Formula 2



Formula 3



wherein R₁ and R₂ represent silyl groups, alkyl groups or alkoxy groups; and R₃ and R₄ represent alkyl groups.

10. The method as defined in claim 9, wherein R₁, R₂, R₃ and R₄ contain C₁ to C₂₂ linear or branched alkyl groups.

ABSTRACT

Disclosed is a light-emitting copolymer having a wavelength range of emitting not only blue light but also red light, as represented by the following formula 1, in which the energy of blue light emission from a fluorene repeating unit on a blue light-emitting fluorene-based main chain is transferred to a red comonomer in the copolymer to emit red light. An electroluminescence device using the light-emitting copolymer is also disclosed.

Formula 1

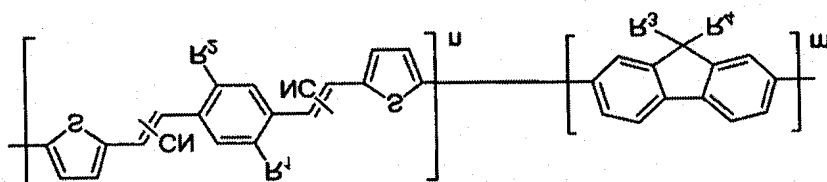


FIG. 1

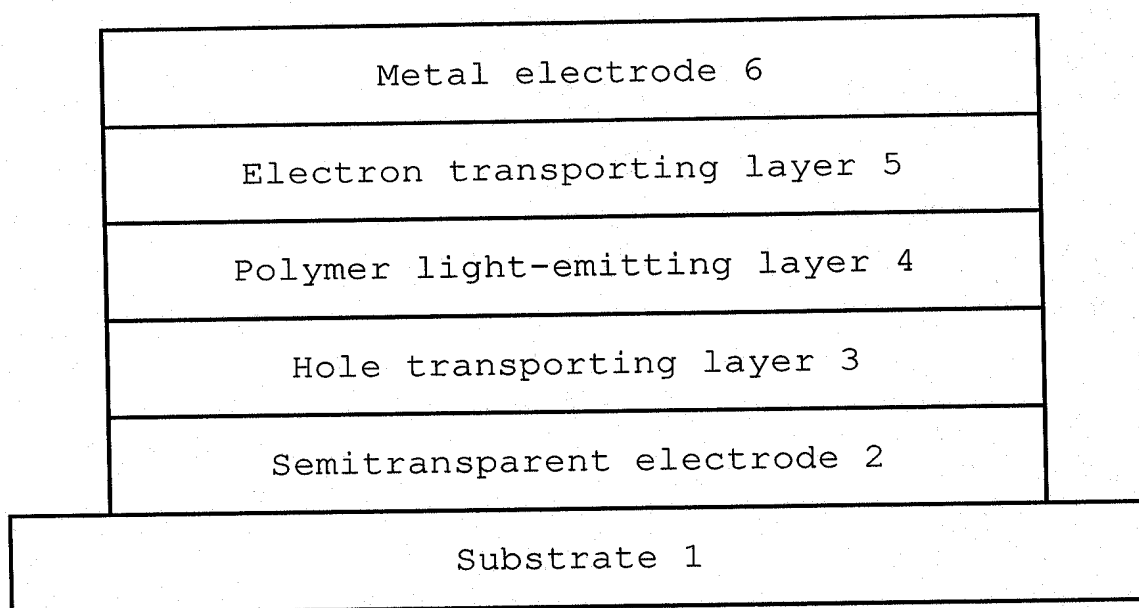


FIG. 2

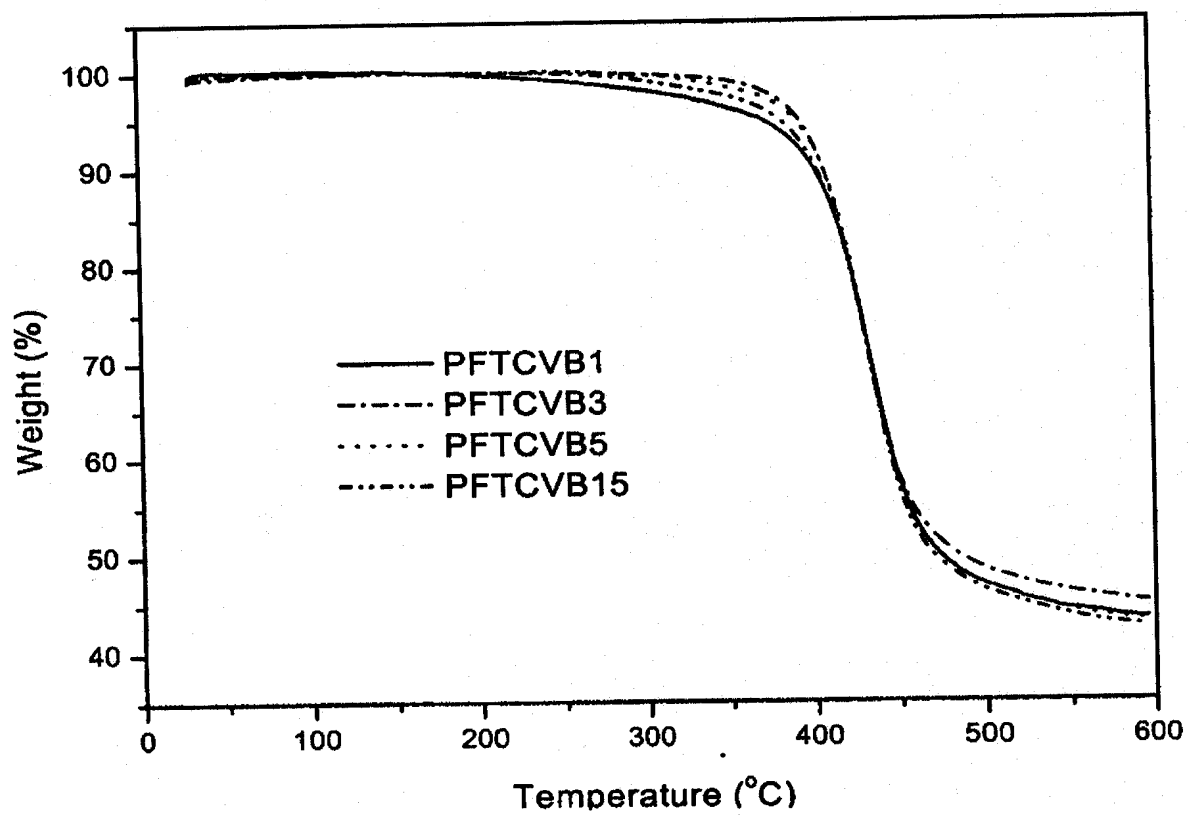


FIG. 3

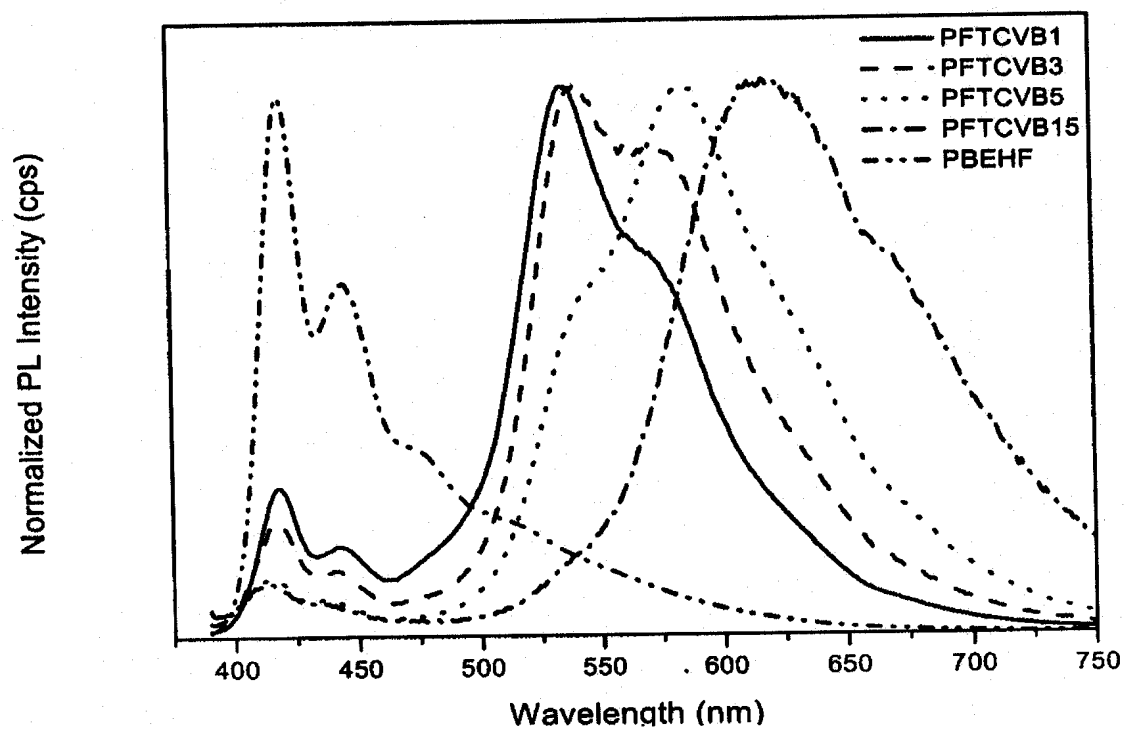


FIG. 4

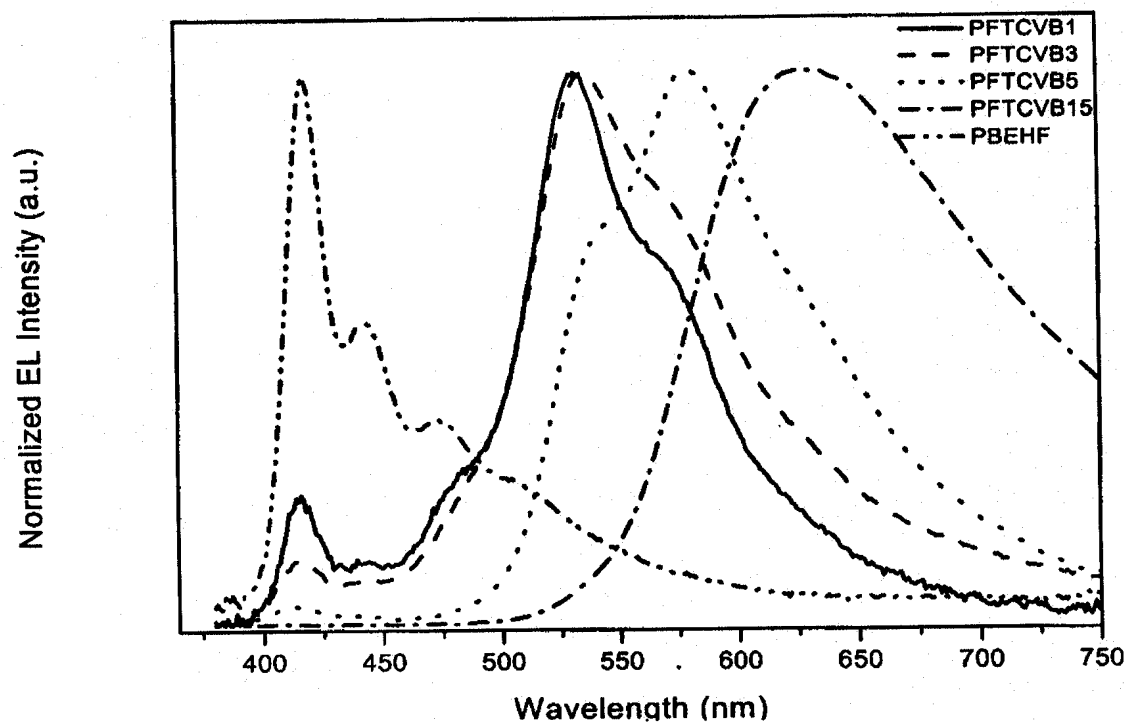


FIG. 5

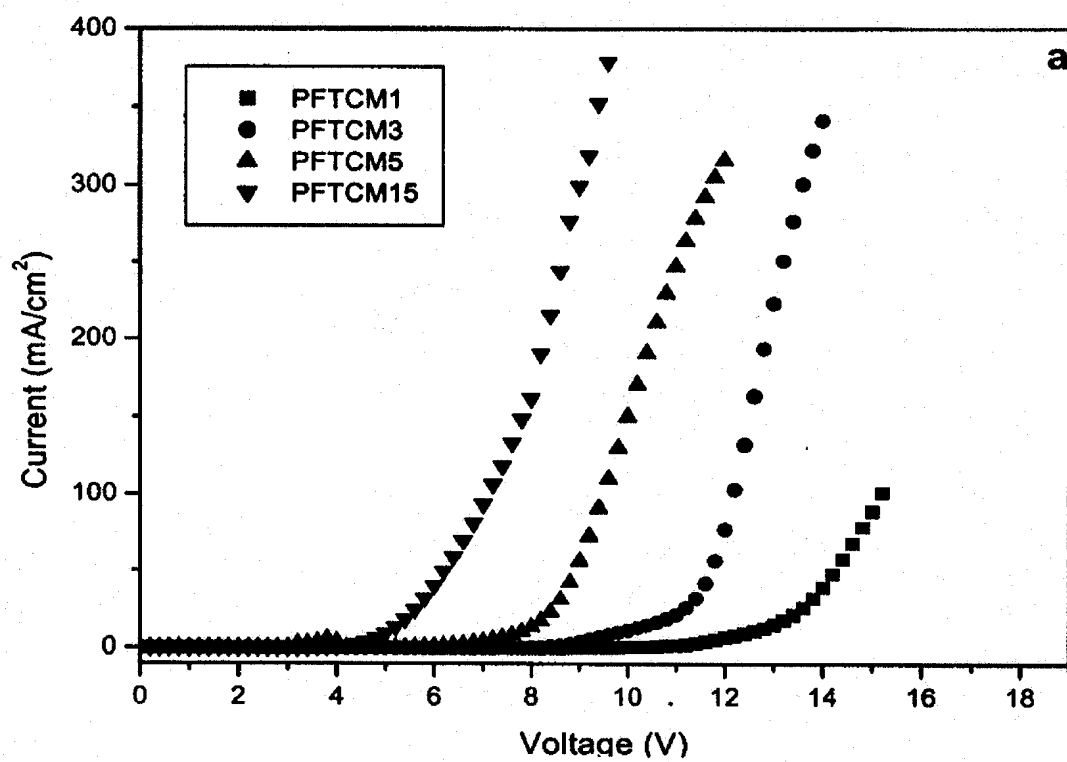


FIG. 6

